

SEQUENCE LISTING

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<120> COMPOSITIONS AND METHODS FOR OPTIMIZING
CLEAVAGE OF RNA BY RNASE H

<130> CORE0037USA

<140> 10/592,919

<141> 2007-07-31

<150> PCT/US2005/008428

<151> 2005-03-15

<150> 60/609,516

<151> 2004-09-13

<150> 60/567,016

<151> 2004-04-29

<150> 60/553,646

<151> 2004-03-15

<160> 48

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<210> 3

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide

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<213> Mus musculus

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cggcggtcgc acctcccgt cctggagcgg gggggagaag cggcggcggc ggccgcggct 480
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atgttcagtg gcggaacttg caatcctcag tttgtggtct gccagctaaa ggtgaagata 1620
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gaaacctcag aaaaagtgg aaatggaagt ctttgtgatc aggaaatcga tagcatttgc 1860
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cttgacaaag caaacaaga caaggccaac cgatacttct ctccaaattt taaggtgaaa 1980
ctatacttta caaaaacagt agaggagcca tcaaatccag aggctagcag ttcaacttct 2040
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<211> 24
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<213> Artificial Sequence

<220>
<223> synthetic oligonucleotide

<400> 5
atgacaatca tgttcgagca attc

24

<210> 6
<211> 25
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<220>
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<210> 7 <211> 28 <212> DNA <213> Artificial Sequence	
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<220> <223> synthetic oligonucleotide	
<400> 11 gcgcuaaagc gc	12
<210> 12 <211> 19 <212> RNA <213> Artificial Sequence	
<220> <223> synthetic oligonucleotide	
<400> 12 cgagaggcgg acgggaccg	19
<210> 13 <211> 21	

<212> DNA
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 <220>
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 <220>
 <221> misc_feature
 <222> 1-19
 <223> Bases at these positions are RNA

 <400> 13
 cgagaggcgg acgggaccgt t 21

 <210> 14
 <211> 21
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide

 <220>
 <221> misc_feature
 <222> 1, 2, 3, 5, 6, 7, 8, 10, 11, 12, 13, 14,
 16, 18, 19
 <223> Bases at these positions are RNA

 <400> 14
 cggtcccgtc cgcctctcgt t 21

 <210> 15
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide

 <220>
 <221> modified_base
 <222> 4
 <223> N = tetrafluoroindole

 <400> 15
 ctgntagcct ctggatttga 20

 <210> 16
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide

 <220>
 <221> modified_base
 <222> 5
 <223> N = tetrafluoroindole

 <400> 16
 ctgcnagcct ctggatttga 20

 <210> 17
 <211> 20
 <212> DNA

<213> Artificial Sequence

<220>

<223> synthetic oligonucleotide

<220>

<221> modified_base

<222> 6

<223> N = tetrafluoroindole

<400> 17

ctgctngcct ctggatttga

20

<210> 18

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic oligonucleotide

<220>

<221> modified_base

<222> 7

<223> N = tetrafluoroindole

<400> 18

ctgctancct ctggatttga

20

<210> 19

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic oligonucleotide

<220>

<221> modified_base

<222> 8

<223> N = tetrafluoroindole

<400> 19

ctgctagnct ctggatttga

20

<210> 20

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic oligonucleotide

<220>

<221> modified_base

<222> 10

<223> N = tetrafluoroindole

<400> 20

ctgctagccn ctggatttga

20

<210> 21

<211> 20

<212> DNA

<213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide

 <220>
 <221> modified_base
 <222> 5
 <223> N = N-3-methyl-2'MOE-thymidine

 <400> 21
 ctgcnagcct ctggatttga 20

 <210> 22
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide

 <220>
 <221> modified_base
 <222> 17
 <223> N = tetrafluoroindole

 <400> 22
 ctgctagcct ctggatntga 20

 <210> 23
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 <220>
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 <222> 16
 <223> N = tetrafluoroindole

 <400> 23
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 <210> 24
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 <222> 15
 <223> N = tetrafluoroindole

 <400> 24
 ctgctagcct ctggntttga 20

 <210> 25
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 <222> 14
 <223> N = tetrafluoroindole

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 ctgctagcct ctgnatttga 20

 <210> 26
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 <220>
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 <220>
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 <222> 13
 <223> N = tetrafluoroindole

 <400> 26
 ctgctagcct ctngatttga 20

 <210> 27
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 <220>
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 <220>
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 <222> 5, 15
 <223> N = tetrafluoroindole

 <400> 27
 ctgcnagcct ctggntttga 20

 <210> 28
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 <212> DNA
 <213> Artificial Sequence

 <220>
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 <220>
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 <222> 16
 <223> N = N-3-methyl-2'MOE-thymidine

 <400> 28
 ctgctagcct ctgganttga 20

 <210> 29
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide

 <220>

<221> modified_base
 <222> 7
 <223> N = 2'-ara-fluorothymidine or pseudouridine or
 2'-fluorothymidine or 2-thiouridine or
 2'-S-methylthymidine or 4'-methylthymidine or
 3'-methylthymidine

 <400> 29
 ctacgcnttc cacgcacagt 20

 <210> 30
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide

 <220>
 <221> modified_base
 <222> 8
 <223> 2'-ara-fluorothymidine or pseudouridine or
 2'-fluorothymidine or 2-thiouridine or
 2'-S-methylthymidine or 4'-methylthymidine or
 3'-methylthymidine

 <400> 30
 ctacgctntc cacgcacagt 20

 <210> 31
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide

 <220>
 <221> modified_base
 <222> 9
 <223> 2'-ara-fluorothymidine or pseudouridine or
 2'-fluorothymidine or 2-thiouridine or
 2'-S-methylthymidine or 4'-methylthymidine or
 3'-methylthymidine or abasic nucleotide or 2,4-F-toyl

 <400> 31
 ctacgcttnc cacgcacagt 20

 <210> 32
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide

 <220>
 <221> modified_base
 <222> 10
 <223> 2'-ara-fluorocytidine or abasic nucleotide or
 2,4-F-toyl

 <400> 32
 ctacgcttnn cacgcacagt 20

 <210> 33

<211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide

 <220>
 <221> modified_base
 <222> 11
 <223> abasic nucleotide or 2,4-F-toyl

 <400> 33
 ctacgctttc nacgcacagt 20

 <210> 34
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide

 <220>
 <221> modified_base
 <222> 12
 <223> adenine with propyl linker or adenine with butyl
 linker or adenine with pentyl linker or
 tetrahydrofuran or 4-Me-ben

 <400> 34
 ctacgctttc cncgcacagt 20

 <210> 35
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide

 <220>
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 <222> 13
 <223> 2'-ara-fluorocytidine

 <400> 35
 ctacgctttc cangcacagt 20

 <210> 36
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 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide

 <220>
 <221> modified_base
 <222> 14
 <223> guanine with propyl linker or tetrahydrofuran or
 gancyclovir

 <400> 36
 ctacgctttc cacncacagt 20

<210> 37
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide

<220>
 <221> modified_base
 <222> 15
 <223> 2'-ara-fluorocytidine or cytidine with propyl
 linker or cytidine with butyl linker or cytidine
 with pentyl linker

<400> 37
 ctacgctttc cacgnacagt 20

<210> 38
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide

<220>
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 <222> 4
 <223> N= Tetraflouroindole

<400> 38
 agtntagggtc tccgatcgtc 20

<210> 39
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 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide

<220>
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 <222> 5
 <223> N= Tetraflouroindole or N=
 2,3,4,5-tetraflourophenyl

<400> 39
 agttnagggtc tccgatcgtc 20

<210> 40
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide

<220>
 <221> modified_base
 <222> 6
 <223> N= Tetraflouroindole or N=
 2,3,4,5-tetraflourophenyl

<400> 40

agtttnggtc tccgatcgtc 20

<210> 41
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide

<220>
 <221> modified_base
 <222> 7
 <223> N= Tetraflouroindole

<400> 41
 agtttangtc tccgatcgtc 20

<210> 42
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 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide

<220>
 <221> modified_base
 <222> 8
 <223> N= Tetraflouroindole

<400> 42
 agtttagntc tccgatcgtc 20

<210> 43
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide

<220>
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 <222> 13
 <223> N= Tetraflouroindole

<400> 43
 agtttaggtc tcngatcgtc 20

<210> 44
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
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<220>
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 <222> 14
 <223> N= Tetraflouroindole

<400> 44
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<210> 45
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide

<220>
 <221> modified_base
 <222> 15
 <223> N= Tetraflouroindole

<400> 45
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<210> 46
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<220>
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<220>
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 <222> 16
 <223> N= Tetraflouroindole

<400> 46
 agtttaggtc tccgancgtc 20

<210> 47
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide

<220>
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 <222> 17
 <223> N= Tetraflouroindole

<400> 47
 agtttaggtc tccgatngtc 20

<210> 48
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide

<220>
 <221> modified_base
 <222> 6, 16
 <223> N= Tetraflouroindole

<400> 48
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